

CLAIMS

- 1 1. A symbol expansion method comprising:
 - 2 selecting a map portion containing one or more map display symbols on a computer
 - 3 map display; and
 - 4 presenting a symbol expansion display related to the map portion on the computer
 - 5 map display.
- 1 2. The method of claim 1, wherein the selecting comprises:
 - 2 pointing to a map display symbol with a computer pointing device.
- 1 3. The method of claim 1, wherein the selecting comprises:
 - 2 selecting a map portion of the computer map display containing the one or more map
 - 3 display symbols with the computer pointing device.
- 1 4. The method of claim 1, wherein the presenting comprises:
 - 2 relating the one or more map display symbols to one or more map symbol records
 - 3 retained in a computer memory, each containing record components;
 - 4 selecting one or more record components from among the one or more map symbol
 - 5 records; and
 - 6 formatting the one or more record components for the symbol expansion display.
- 1 5. The method of claim 4, wherein the selecting one or more record components
 - 2 comprises:
 - 3 selecting record graphics components of the one or more map symbol records.
- 1 6. The method of claim 5, wherein the selecting one or more record components
 - 2 comprises:
 - 3 selecting record data of the one or more map symbol records.
- 1 7. The method of claim 6, wherein the selecting record data comprises:

2 filtering the record data of the one or more map symbol records to provide symbol
3 expansion data corresponding to a selected record data type.

1 8. The method of claim 7, wherein filtering the record data comprises:
2 selecting a record data type selected from the group consisting of a dollar asset range
3 record data type, a friendliness range record data type, a personnel size record data type, a
4 security classification record data type, a type of service record data type, and an age of
5 symbol record data type.

1 9. The method of claim 6, wherein the selecting record data comprises:
2 filtering the record data of the one or more map symbol records to provide symbol
3 expansion data corresponding to a selected record data range.

1 10. The method of claim 6, wherein the selecting record data comprises:
2 algorithmically combining map symbol records to provide symbol expansion data.

1 11. The method of claim 4, wherein formatting comprises:
2 providing a list of the symbol expansion graphics, movable by the user on the
3 computer maps display, and associated with the record graphics components of the one or
4 more map symbol records.

1 12. The method of claim 11, wherein formatting further comprises:
2 providing a list of the symbol expansion data, movable by the user on the
3 computer maps display, and associated with the record data components of the one or
4 more map symbol records.

1 13. The method of claim 12, wherein providing a list of symbol expansion data
2 comprises:
3 providing a user selectable language for the list of symbol expansion data.

1 14. The method of claim 13, wherein formatting further comprises:

2 providing a lead line from the map display symbol to the symbol expansion display
3 where the lead line moves in accordance with the position of the symbol expansion
4 display.

1 15. The method of claim 14, wherein formatting further comprises:
2 color coding a symbol expansion graphic to indicate an attribute of the object
3 represented by the map display symbol.

1 16. The method of claim 15, wherein formatting further comprises:
2 augmenting the symbol expansion display with special identifying characters that
3 indicate when symbol information components have been omitted from the symbol
4 expansion display.

1 17. A symbol expansion apparatus comprising:
2 a selection device to select a map portion containing one or more map display
3 symbols on a computer map display; and
4 a presentation processor that receives information concerning the one or more map
5 display symbols selected by said selecting device and which presents a symbol expansion
6 display related to the map display region on the computer map display.

1 18. The apparatus of claim 17, wherein the for presentation processor comprises:
2 a computer memory having one or more map symbol records stored therein;
3 a relation processor which relates the one or more map display symbols to one or
4 more map symbol records retained in the computer memory;
5 a selector for selecting one or more record components from among the one or more
6 map symbol records; and
7 a display processor which receives and formats each of the one or more record
8 selected components for the symbol expansion display.

1 19. The apparatus of claim 18, wherein the display processor comprises:
2 means for providing a list of the symbol expansion graphics, movable by the user

3 on the computer maps display, and associated with the record graphics components of the
4 one or more map symbol records.

1 20. The apparatus of claim 18, wherein the display processor further comprises:
2 means for providing a list of the symbol expansion data, movable by the user on
3 the computer maps display, and associated with the record data components of the one or
4 more map symbol records.

1 21. The apparatus of Claims 18 wherein the selection device is adapted to select a map
2 portion containing the one or more map display symbols.